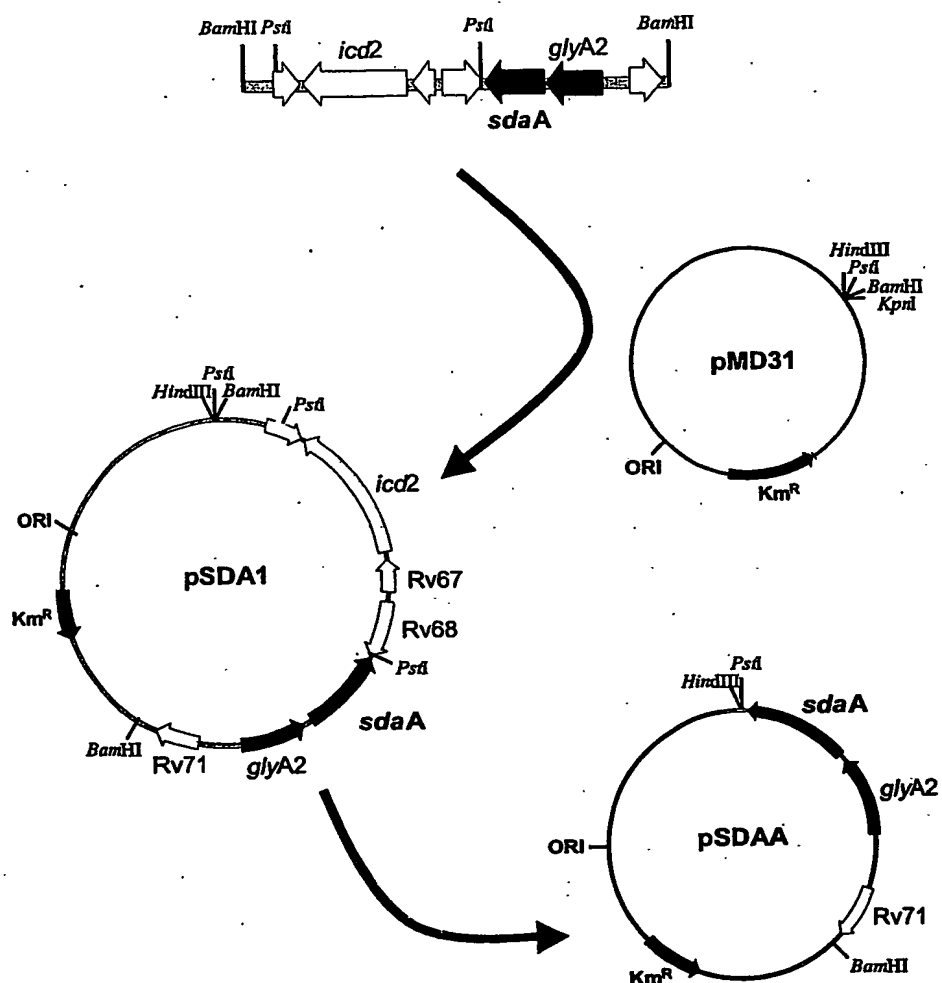
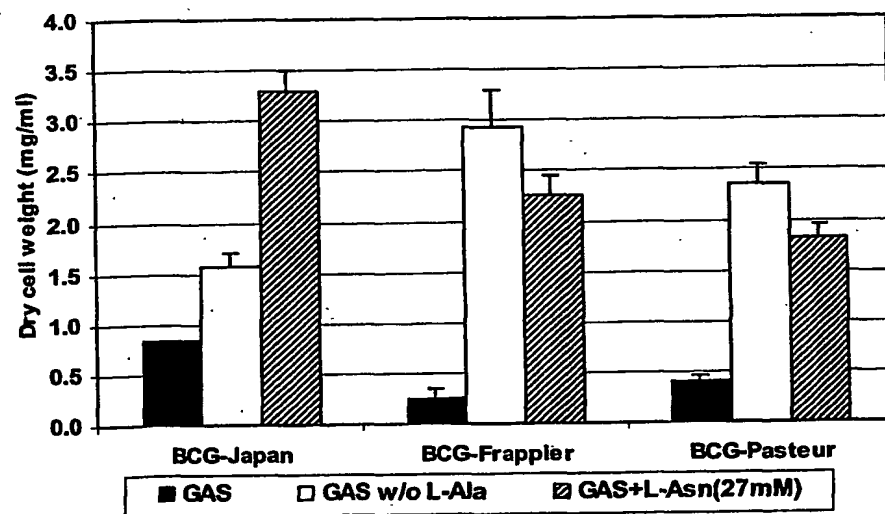
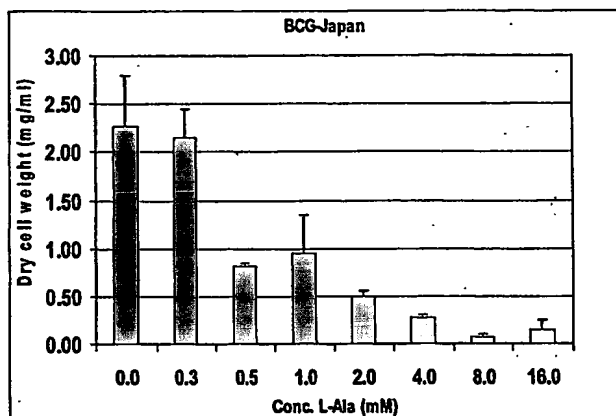


Fig. 1

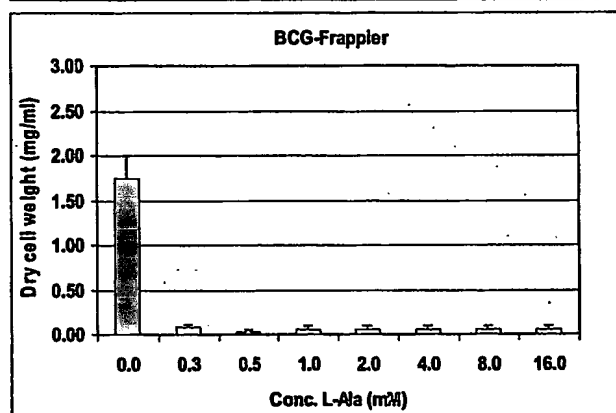
**Fig. 2**

**Fig. 3**

a)



b)



c)

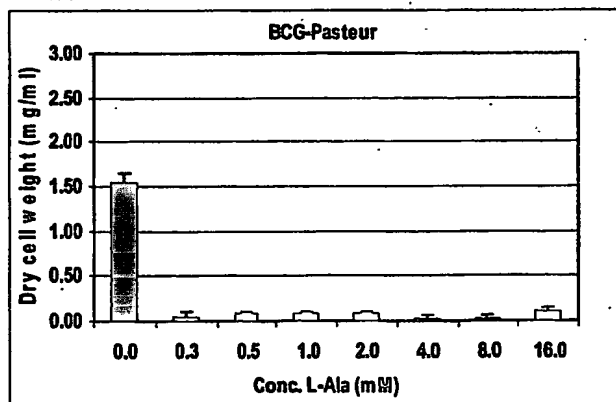
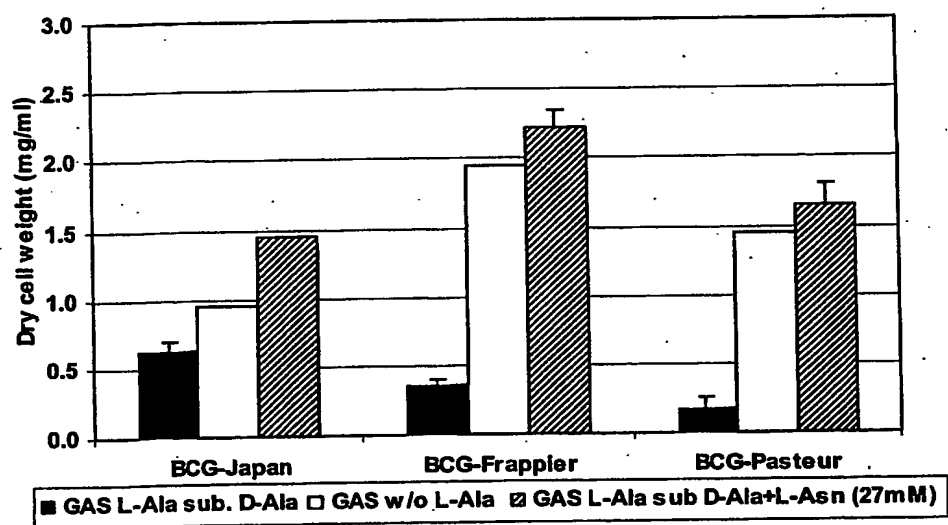
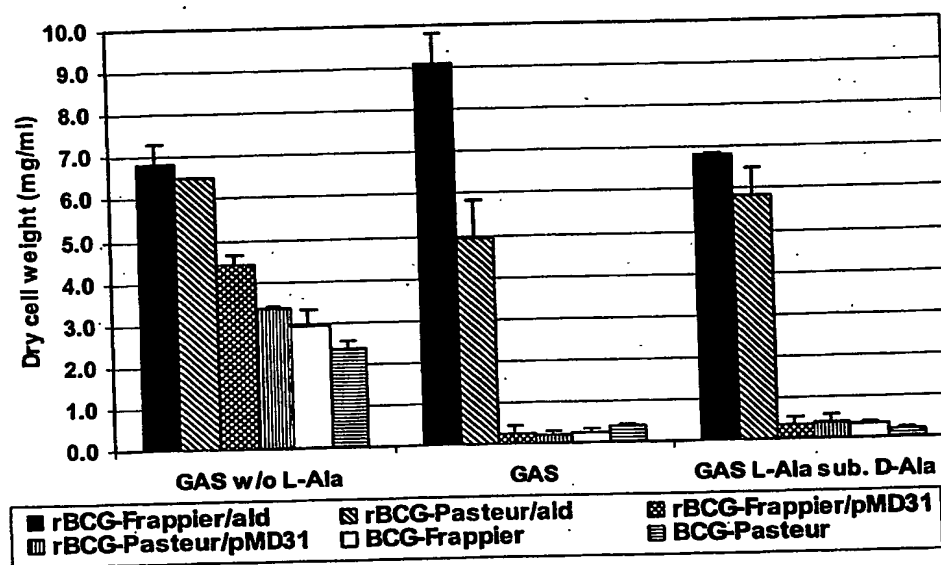
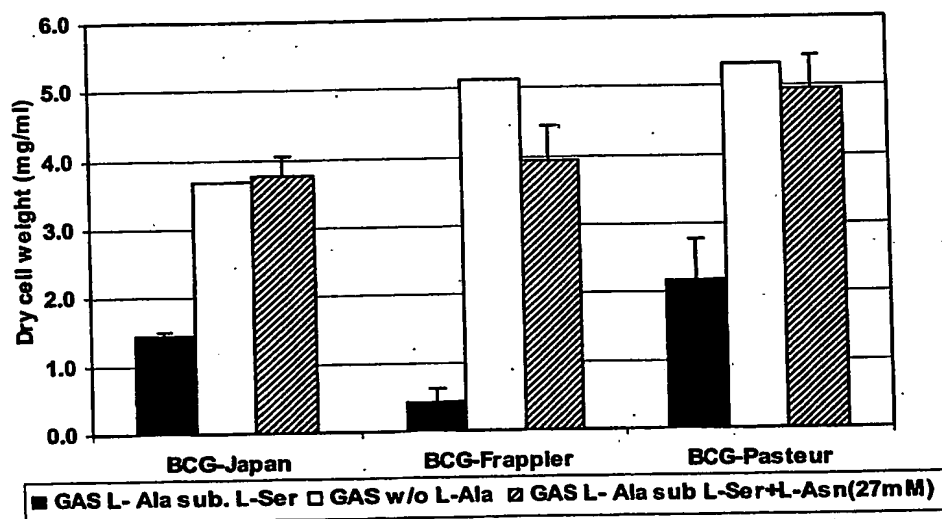
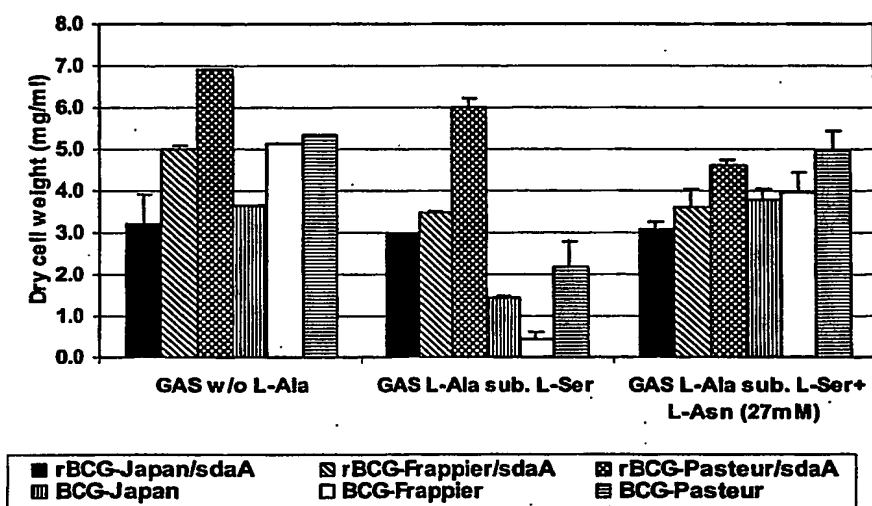


Fig. 4

**Fig. 5**

**Fig. 6**

**Fig. 7**

**Fig. 8**



**A**

*M.tb* ATG CGC GTC GGT ATT CCG ACC GAG ACC AAA AAC AAC GAA TTC CGG GTG GCC ATC  
*M.bovis* ATG CGC GTC GGT ATT CCG ACC GAG ACC AAA AAC AAC GAA TTC CGG GTG GCC ATC  
  
*M.tb* ACC CCG GCC GGC GTC GCG GAA CTA ACC CGT CGT GGC CAT GAG GTG CTC ATC CAG  
*M.bovis* ACC CCG GCC GGC GTC GCG GAA CTA ACC CGT CGT GGC CAT GAG GTG CTC ATC CAG  
  
*M.tb* GCA GGT GCC GGA GAG GGC TCG GCT ATC ACC GAC GCG GAT TTC AAG GCG GCA GGC  
*M.bovis* GCA GGT GCC GGA GAG GGC TCG GCT ATC ACC GAC GCG GAT TTC AAG GCG GCA GGC  
  
*M.tb* GCG CAA CTG GTC GGC ACC GCC GAC CAG GTG TGG GCC GAC GCT GAT TTA TTG CTC  
*M.bovis* GCG CAA CTG GTC GGC ACC GCC GAC CAG GTG TGG GCC GAC GCT GAT TTA TTG CTC  
  
*M.tb* AAG GTC AAA GAA CCG ATA GCG GCG GAA TAC GGC CCG CTG CGA CAC GGG CAG ATC  
*M.bovis* AAG GTC AAA GAA CCG ATA GCG GCG GAA TAC GGC CCG CTG CGA CAC GGG C\*GA TCT  
  
*M.tb* TTG TTC ACG TTC TTG CAT TTG GCC GCG TCA CGT GCT TGC ACC GAT GCG <sup>↑</sup>TTG TTG  
*M.bovis* TGT TCA CGT TCT TGC ATT TGG CCG CGT CAC GTG CTT GCA CCG ATG CGT TGT TGG  
  
*M.tb* GAT TCC GGC ACC ACG TCA ATT GCC TAC GAG ACC GTC CAG ACC GCC GAC GGC GCA  
*M.bovis* ATT CCG GCA CCA CGT CAA TTG CCT ACG AGA CCG TCC AGA CCG CCG ACG GCG CAC  
  
*M.tb* CTA CCC CTG CTT GCC CCG ATG AGC GAA GTC GCC GGT CGA CTC GCC GCC CAG GTT  
*M.bovis* TAC CCC TGC TTG CCC CGA TGA  
  
*M.tb* GGC GCT TAC CAC CTG ATG CGA ACC CAA GGG GGC CCG GGT GTG CTG ATG GGC GGG  
*M.tb* GTG CCC GGC GTC GAA CCG GCC GAC GTC GTG GTG ATC GGC GCC GGC ACC GCC GGC  
  
*M.tb* TAC AAC GCA GCC CCG ATC GCC AAC GGC ATG GGC GCG ACC GTT ACG GTT CTA GAC  
*M.tb* ATC AAC ATC GAC AAA CTT CCG CAA CTC GAC GCC GAG TTC TGC GGC CCG ATC CAC  
  
*M.tb* ACT CCG TAC TCA TCG GCC TAC GAG CTC GAG GGT GCC GTC AAA CGT GCC GAC CTG  
*M.tb* GTG ATT GGG GCC GTC CTG GTG CCA GGC GCC AAG GCA CCC AAA TTA GTC TCG AAT  
  
*M.tb* TCA CTT GTC GCG CAT ATG AAA CCA GGT GCG GTA CTG GTG GAT ATA GCC ATC GAC  
*M.tb* CAG GGC GGC TGT TTC GAA GGC TCA CGA CCG ACC ACC TAC GAC CAC CCG ACG TTC  
  
*M.tb* GCC GTG CAC GAC ACG CTG TTT TAC TGC GTG GCG AAC ATG CCC GCC TCG GTG CCG  
*M.tb* AAG ACG TCG ACC TAC GCG CTG ACC AAC GCG ACG ATG CCG TAT GTG CTC GAG CTT  
  
*M.tb* GCC GAC CAT GGC TGG CCG GCG GCG TGC CCG TCG AAT CCG GCA CTA GCC AAA GGT  
*M.tb* CTT TCG ACG CAC GAA GGG GCG TTA CTG TCC GAA CCG GTG GCC ACC GAC CTG GGG  
  
*M.tb* GTG CCG TTC ACC GAG CCC GCC AGC GTG CTG GCC TGA

**B**

*M.tb* MRVGIFTETKNNFRVAITPAGVAELTRGHEVLIQAGAGEGSAITDADFKAAGQLVGTADQVWADADLL  
*M.bovis* MRVGIFTETKNNFRVAITPAGVAELTRGHEVLIQAGAGEGSAITDADFKAAGQLVGTADQVWADADLL  
  
*M.tb* LKVKPIAAEYGRRLRHGQILFTFLHLAASRACTDALLDSGTTSLIAYETVQTADGALPILAPMSEVAGRLAA  
*M.bovis* LKVKPIAAEYGRRLRHGSCSRSCITNPRHVLAPMRCNIPAPRQLPTRPSRPPTAHYPCLP-  
  
*M.tb* QVGAYHLMRTQGGRGVLMGGVPGVEPADVVVIGAGTAGYNAARIANGMSATVTVLIDINIDKLRLQDAEFCG  
  
*M.tb* RINTRYSSAYELEGAVKRADLVIGAVLVPGAKAPKLVSNSLVAHMKPGAVLVDIAIDQGCCPEGSRPTTYD  
  
*M.tb* HPTFAVHDTLFCYVANMPASVPKTSYALNATMFFVLEADHGWRAACRSNPALAKGLSTHEGALLSERV  
  
*M.tb* ATDLGVFFTEPASVLA-

**Fig. 9**